REMARKS

This Amendment is submitted in reply to the Non-Final Office Action mailed on March 19, 2009. A Petition for a one month extension of time is submitted herewith this Amendment. The Commissioner is hereby authorized to charge $130.00 for the Petition for a one month extension of time and any additional fees that may be required or credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 0112701-00442 on the account statement.

Claims 1-3 and 12-29 are pending in this application. Claims 21-28 are allowed. Claims 1-2, 12-15 and 29 are rejected under 35 U.S.C. §103. In response, Claims 1-2 and 29 have been amended. No new matter has been added. The amendments are supported in the specification at, for example, page 15, line 12-page 7, line 6. In view of the amendments and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, Claims 1-2, 12-15 and 29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Industrial Chocolate Manufacture and Use to Beckett et al. ("*Beckett*") in view of Chocolate, Cocoa and Confectionery: Science and Technology to Minifie ("*Minifie*"). In view of the mendments, and/or for at least the reasons set forth below, Applicants respectfully disagree with and traverse this rejection.

Currently amended independent Claim 1 recites, in part, subjecting a powdery mass to an elongational flow to break up agglomerates and intimate interactions of the solids with the fat, wherein the predominant elongational flow is achieved by forcing a flow of the fat based mixture through a plurality of flow constrictions positioned relative to the flow. Independent Claim 16 recites, in part, a device for reducing the viscosity of a fat based mixture comprising a die assembly comprising at least one die plate with a plurality of holes. Currently amended independent Claim 29 recites, in part, methods for lowering the viscosity of a fat based mixture comprising solids and fat that have been previously refined to a powdery mass, the method comprising subjecting the powdery mass to an, wherein the elongational flow is achieved by forcing under pressure an on a continuous manner the powdery mass through a plurality of holes of at least one die plate. The amendments do not add new matter. The amendments are supported in the specification at, for example, page 15, line 12-page 7, line 6.

Devices for conching a chocolate refined mass have been developed for decades based on the principle of producing high shear flow on the mass by rotary means such as stripping elements, arms or vanes revolving along an inner surface of large containers. For instance, a conventional device for conching consists of three axis-parallel cylindrical upwardly open chambers. There is a central main chamber with the largest diameter and two lateral subsidiary chambers. The three chambers merge into one another thereby forming the conche container. Mixing tools are disposed in each chamber on driven shafts. In general, high shearing and compression are both formed between the moving stripping tool and the static surface of the chambers. Due to the size to surface volume ratio of the known conching systems, only a small amount of chocolate mass is sheared at one time. Even while providing high shearing flow, the transition of the chocolate flake to the desired finished rheology is a time consuming process. Furthermore, the industrial conching machines occupy a considerable floor space in the factory and hence, the capital cost of these machines is very high. As a result, while a conventional conching device is very important in the chocolate making process, it is a very inefficient mixer.

Applicants have surprisingly found that the desired rheological attributes of a chocolate or chocolate-like mass can be achieved in a more effective way. For instance, the breaking up of agglomerates and pasting of the powdery fat based mass can be obtained more quickly and in a more economic manner by applying an elongational flow (e.g., through a plurality of holes in a die plate) as opposed to a predominant shear action on the starting confectionery mass as has customarily been done in a shear mixer such as a traditional conche.

In embodiments of the claimed invention, a predominant elongational flow is achieved by forcing a flow of a fat based mixture through a plurality of flow constrictions positioned in parallel and/or series relative to the flow. In a normal conche, only a small portion of the agglomerates is submitted to the shear at a time, whereas the rest of the agglomerates usually move out of the way of the shearing zone. Therefore, a long time is required before all the agglomerates have been spread by the shear created along the walls of the conche. In contrast, by using the claimed invention, the agglomerates cannot escape because the entire fat based mixture must traverse constrictions and is thereby exposed to a substantially equivalent elongation effect. In contrast, *Beckett* and *Minifie* fail to disclose or suggest every element of independent Claims 1, 16 and 29.

Beckett and *Minifie* fail to disclose or suggest subjecting a powdery mass to an elongational flow as required, in part, by independent Claims 1, 16 and 29. *Beckett* and *Minifie* also fail to disclose or suggest wherein the elongational flow is achieved by forcing a flow of the fat based mixture through a plurality of flow constrictions positioned relative to the flow as required, in part, by independent Claim 1. Further, *Beckett* and *Minifie* also fail to disclose or suggest a die assembly comprising at least one die plate with a plurality of holes as required, in part, by independent Claim 16. Moreover, *Beckett* and *Minifie* also fail to disclose or suggest , wherein the elongational flow is achieved by forcing under pressure an on a continuous manner the powdery mass through a plurality of holes of at least one die plate as required, in part, by independent Claim 29. Instead, *Beckett* is entirely directed to conventional conching devices and methods involving mixing elements such as stirring paddles or arms that provide shear forces to a chocolate mass. See, e.g., *Beckett*, Figures 9.2, 9.4 and 9.6. Nevertheless, *Beckett* fails to disclose or suggest any die plates that provide elongation flow to a powder mass in accordance with the present claims. Moreover, the Patent Office has not even provided any specific elements in *Beckett* that corresponds to the aforementioned elements of independent Claims 1, 16 or 29.

Similarly, *Minifie* is entirely directed to general chocolate manufacturing processes and methods. Indeed, the Patent Office merely cites *Minifie* for the disclosure that chocolate manufacturing is generally known the art to include a refining step, which reduces the particle size of the chocolate nib to a powdery state with a particle size of 50-0 microns for dark chocolate and less than 65 microns for milk chocolate. See, Office Action, page 3, lines 1-6. Accordingly, *Minifie* fails to remedy the deficiencies of *Beckett* because *Minifie* also fails to disclose or suggest subjecting the powdery mass to an elongation flow that is achieved by methods of the present claims.

The Patent Office alleges that "Applicant argues that the prior art conches do not have die plates with a plurality of holes. This has been considered but is not persuasive because the claims do not require this feature." See, Office Action, page 3, lines 12-14. However, Applicants respectfully disagree. Independent Claim 16 already includes the limitation wherein the device comprises a die assembly comprising at least one die plate with a plurality of holes and a pressure generating device to exert a pressure on the mixture located upstream of the die

assembly to force the powdery mass through the plurality of holes and thereby create an elongational flow. Similarly, independent Claims 1 and 29 have been amended to include the limitations wherein the elongational flow is achieved by forcing a flow of the fat based mixture through a plurality of flow constrictions positioned relative to the flow, and wherein the elongational flow is achieved by forcing under pressure and on a continuous manner the powdery mass through a plurality of holes of at least one die plate, respectively. Accordingly, all independent claims now require the limitation wherein the device achieves elongational flow by forcing the powdery mass through a plurality of holes. As discussed above, Applicants have surprisingly found that the desired rheological attributes of a chocolate or chocolate-like mass can be achieved in a more effective way than is seen in the prior art. For instance, the breaking up of agglomerates and pasting of the powdery fat based mass can be obtained more quickly and in a more economic manner by applying an elongational flow (e.g., through a plurality of holes in a die plate) as opposed to a predominant shear action on the starting confectionery mass as has customarily been done in a shear mixer such as a traditional conche. This feature is not disclosed or even suggested in either *Beckett* or *Minifie*.

For at least the reasons discussed above, Applicants respectfully submit that independent Claims 1, 16 and 29, along with the claims that depend from Claims 1, 16 and 29, are novel, nonobvious and distinguishable from the cited reference.

Accordingly, Applicants respectfully request that the rejection of Claims 1-2, 12-15 and 29 under 35 U.S.C. §103 be withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

K&L GATES LLP

BY _____
Robert M. Barrett
Reg. No. 30,142
Customer No. 29157
Phone No. 312-807-4204

Dated: July 14, 2009